

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for designing an application, comprising:
 - (a) receiving an application type selection from a user, the application type including which type of application is to be dynamically generated metadata and a policy;
 - (b) automatically selecting a corresponding policy based on the received application type selection;
 - ~~(b)~~ (c) dynamically constructing a user-interface in accordance with the policy, the policy including a set of rules for application stages and components; and
 - (e) ~~(d)~~ creating the application through the user-interface wherein (c) comprises:
 - (i) creating a graphical representation of the application, the representation having at least one stage, the each stage having at least one corresponding component; and
 - (ii) receiving a user input indicating a selection of one or more components that are to be incorporated into the application;
 - (iii) determining that the user-selected components are in accordance with the automatically selected policy corresponding to the application type; and
 - ~~(ii)~~ (iv) compiling the representation of the application including the user-selected components in concert accordance with the automatically selected policy.
2. (Original) The method of claim 1, wherein the user interface supports a design surface with a toolbox and wherein the toolbox has a plurality of available components.
3. (Previously Presented) The method of claim 2, wherein the stage further comprises at least one component selected from the plurality of available components of the toolbox.
4. (Canceled)

5. (Original) The method of claim 3, wherein the representation is displayed in a graphical format.

6. (Canceled)

7. (Currently Amended) The method of claim 1, wherein ~~(b)~~ (c) comprises:

(i) categorizing each component to one of a plurality of stages.

8. (Currently Amended) The method of claim 1, wherein the stage includes a first component and a second component, and wherein ~~(b)~~ (c) comprises:

(i) determining an ordering of the first component and the second component.

9. (Currently Amended) The method of claim 1, wherein ~~(b)~~ (c) comprises:

(i) determining a cardinality of the stage.

10. (Previously Presented) The method of claim 1, wherein one of the at least one component is associated with a plurality of properties.

11. (Currently Amended) The method of claim 10, wherein ~~(e)~~ (d) further comprises:

(iii) selecting one of the plurality of properties.

12. (Currently Amended) The method of claim 1, wherein ~~(b)~~ (c) comprises:

(i) discovering the at least one component that resides on a computer, the computer supporting the user-interface.

13. (Canceled)

14. (Previously Presented) The method of claim 1, wherein the representation of the application is expressed as an extensible markup language (XML) file.

15. (Currently Amended) The method of claim 1, wherein ~~(e)~~ (d) further comprises:
~~(iii)~~ (v) in response to ~~(ii)~~ (iv), executing a plurality of computer-executable instructions.
16. (Currently Amended) The method of claim 1, wherein ~~(e)~~ (d) further comprises:
~~(iii)~~ (v) determining whether an error exists in the representation.
17. (Currently Amended) The method of claim 16, wherein ~~(e)~~ (d) further comprises:
~~(iv)~~ (vi) in response to ~~(iii)~~ (v), indicating a determined component and a determined stage corresponding to the error.
18. (Currently Amended) The method of claim 1, wherein the stage is associated with a plurality of components, and wherein ~~(e)~~ (d) further comprises:
~~(iii)~~ (v) selecting a matched component from the plurality components, the matched component first matching a document being processed.
19. (Currently Amended) The method of claim 1, wherein the stage is associated with a plurality of components, and wherein ~~(e)~~ (d) further comprises:
~~(iii)~~ (v) determining whether the plurality of components shall be sequentially ordered.
20. (Currently Amended) The method of claim 1, wherein ~~(e)~~ (d) comprises:
~~(iii)~~ (v) receiving a command from the user:
~~(iv)~~ (vi) in response to ~~(iii)~~ (v), indicating whether the command corresponds to a permitted operation for manipulating a representation of the application.
21. (Currently Amended) The method of claim 1, wherein ~~(a)~~ (b) comprises:
(i) selecting the policy from a plurality of policies.
22. (Previously Presented) A physical computer-readable medium storing computer-executable instructions for performing the method recited in claim 1.

23. (Previously Presented) A physical computer-readable medium storing computer-executable instructions for performing the method recited in claim 3.

24. (Previously Presented) A physical computer-readable medium storing computer-executable instructions for performing the method recited in claim 12.

25. (Previously Presented) A physical computer-readable medium storing computer-executable instructions for performing the method recited in claim 18.

26. (Previously Presented) A physical computer-readable medium storing computer-executable instructions for performing the method recited in claim 19.

27. (Currently Amended) A system for designing an application, comprising:

- a receiving module that receives an application type selection from a user, the application type including which type of application is to be dynamically generated;
- ~~a policy module that automatically selects a corresponding policy based on the received application type selection~~~~stores metadata, the metadata representing a set of rules that is associated with the application;~~
- ~~a user-interface module that generates a design surface, the design surface specifying the application to create the application~~ a construction module that dynamically constructs a user-interface in accordance with the policy, the policy including a set of rules for application stages and components, the constructing including:
 - creating a graphical representation of the application, the representation having at least one stage, each stage having at least one corresponding component;
 - receiving a user input indicating a selection of one or more components that are to be incorporated into the application;
 - determining that the user-selected components are in accordance with the automatically selected policy corresponding to the application type; and
 - compiling the representation of the application including the user-selected components in accordance with the automatically selected policy; and
- ~~a composition logic module that receives the metadata from the policy module and that restrains the design surface to be consistent with the metadata when displaying a representation of the application through the user-interface module;~~
- ~~an input module that receives a command from a user to manipulate the design surface and that updates the design surface, through the composition logic module, in accordance with the command; and~~
- ~~a compiler module that is coupled to the policy module and that transforms the representation into a set of computer-executable instructions, the set of computer-executable instructions being consistent with the metadata contained in the policy module~~
- an application creation module that creates an application through the user-interface based on the compiled representation.

28. (Currently Amended) The system of claim 27, ~~wherein the user-interface module comprises~~ further comprising a display interface to a video display device, the video display device showing the design surface to the user.

29. (Canceled)

30. (Currently Amended) The system of claim 27, further comprising:
a compiler module that transforms the representation into a set of computer-executable instructions in accordance with the policy; and
an execution engine that executes the set of computer-executable instructions.

31. (Currently Amended) The system of claim 27, further comprising:
a memory that stores software, the software supporting a component, wherein the ~~composition logic~~ application creation module discovers the component and provides a display indicator that is associated with the component.

32. (Currently Amended) The system of claim 27, wherein the policy module is co-located with the ~~user-interface~~ construction module.

33. (Currently Amended) The system of claim 27, wherein the policy module is remotely located from the ~~user-interface~~ construction module.

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Canceled)

38. (Previously Presented) A computer program product for implementing a method for designing an application, the computer program product comprising one or more computer-readable storage media having thereon computer-executable instructions that, when executed by one or more processors of the computing system, cause the computing system to perform the method, the method comprising:

- (a) — receiving metadata that is contained in a policy;
- (b) — dynamically constructing a user-interface in accordance with the policy, the user-interface supporting a design surface for a creation of the application and a toolbox with a plurality of available components;
- (c) — creating a representation of the application, the representation having at least one stage, each stage having at least one component selected from the plurality of available components by a user;
- (d) — compiling the representation of the application in concert with the policy; and
- (e) — in response to (d), executing a set of computer-executable instructions
 - (a) receiving an application type selection from a user, the application type including which type of application is to be dynamically generated;
 - (b) automatically selecting a corresponding policy based on the received application type selection;
 - (c) dynamically constructing a user-interface in accordance with the policy, the policy including a set of rules for application stages and components; and
 - (d) creating the application through the user-interface wherein (c) comprises:
 - (i) creating a graphical representation of the application, the representation having at least one stage, each stage having at least one corresponding component;
 - (ii) receiving a user input indicating a selection of one or more components that are to be incorporated into the application;
 - (iii) determining that the user-selected components are in accordance with the automatically selected policy corresponding to the application type; and
 - (iv) compiling the representation of the application including the user-selected components in accordance with the automatically selected policy.

39. (New) The method of claim 1, further comprising discovering appropriate components for the application based on the user-selected application type.

40. (New) The method of claim 39, further comprising displaying symbolic images of all appropriate components.

41. (New) The method of claim 1, further comprising modifying the graphical representation by performing at least one of the following:

selecting one or more components from a toolbox; and
dragging and dropping the selected component into a designated region of the graphical representation.

42. (New) The method of claim 39, further comprising:
determining that the user has attempted to implement a component that is not appropriate for the user-selected application type; and
preventing the user from implementing the component as the component is not appropriate for the user-selected application type.